

### **REMARKS**

Claims 1 through 45 are pending in the application and claims 14-21, and 38 are canceled without prejudice. Claims 1-7, 10-11, 22, 24, 27-28, 31, 33-37, 39, and 41 were amended to further clarify the invention. Applicants note that claims 31-33 and 39-41 were indicated as being allowed in the recent Office Action. Claims 42-45 were added, however, no new matter or new issues are presented in these amendments.

Applicants submit the present amendments and remarks, and respectfully request reconsideration and allowance of the remaining claims.

#### **I. Rejection Under 35 U.S.C. § 102(b):**

The Examiner rejected claims 1-4, 6-22, 24-30, and 34-36 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,553,619 to Prince. This rejection is respectfully traversed.

Applicants respectfully submit that the various rejected independent claims require, *inter alia*, first and second drive mechanisms for pressurizing flushing and contrast media, and a first phase of an injection procedure as a programmed or established flushing medium phase followed by a second phase of the injection procedure that comprises a programmed or established contrast medium phase. Furthermore, as amended, the first flushing medium phase comprises a pressurized injection of flushing medium, and the second contrast medium phase comprises a pressurized injection of contrast medium, respectively. Such features are not disclosed by Prince.

Applicants respectfully disagree with the Examiner's assertion that the Prince patent does inject flushing medium prior and post contrast injection because Prince discloses "resume to flush Gd." (Col. 18, line 43). The Examiner's attention is directed to Prince's disclosure that recites that "a saline flush following the administration of the contrast agent ... as soon as the infusion of the contrast agent is complete, the [saline] drip infusion will automatically resume to 'flush' gadolinium within the intravenous tubing and deliver the contrast agent which remains in the tubing to the patient." (*emphasis added*) (See Col. 18, lines 35-46). Because Prince's use of saline following the Gd. injection is to flush the Gd. residues in the tubing to the patient, that

flush procedure must occur after, not prior to, the contrast Gd. injection. Furthermore, Prince's use of saline to flush the Gd. residues in the tubing to the patient is based on gravity drip. There is no drive mechanism for pressurizing saline involved in Prince's procedure, in contrast to the presently claimed invention.

In fact, Prince teaches a single phase protocol for angiography. Prince's single phase protocol contemplates only a contrast phase injection with Gd. Unlike the presently claimed invention, which requires at least two phases including the first injection phase as being the flushing medium phase that is programmed or established by quantity, a flow rate and a duration, followed by a second phase that comprises a programmed or established contrast medium phase, and at least two drive mechanisms for providing pressurized injection of flush medium in the first flushing medium phase, and pressurized injection of contrast medium in the second contrast medium phase, respectively, Prince does not program or establish his saline flushing procedure prior to the contrast Gd. injection, and his saline flushing procedure is a gravity drip with no pressurized injection. Therefore, Prince's saline flushing procedure can not be considered as part of his injection procedure.

Since Prince does not disclose or teach each and every element of the present invention, the present claims cannot be anticipated by Prince, and the rejections under 35 U.S.C. §102 (b) should be withdrawn.

## **II. Rejection Under 35 U.S.C. §103 (a):**

The Examiner rejected claims 5, 23, 37, and 38 under 35 U.S.C. §103(a) as being unpatentable over Prince as applied to claims 1, 6, 14, and 22 above, and further in view of the U.S. Patent No. 5,573,515 to Wilson. This rejection is respectfully traversed.

Claims 5, 23, 37 and 38 are dependent claims of claims 1, 6, 14, and 22. Applicants respectfully submit that claim 14 has been canceled, rendering the rejection moot. As discussed above, claims 1, 6, and 22, as amended, particularly recite elements, *i.e.* a first phase of an injection procedure as a flushing medium phase with programmed or established quantity, flow

rate and/or duration, followed by a subsequent second phase of the injection procedure that comprises a programmed or established contrast medium phase, and two drive mechanisms for providing pressurized injection of flushing medium and contrast medium, respectively, that were not taught or suggested by Prince. Such deficiency is not cured by Wilson because Wilson does not disclose any more than what Prince discloses in relation to the present invention.

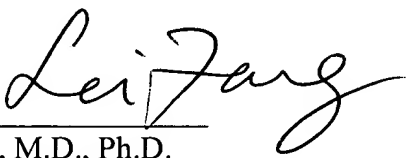
Wilson teaches a self purging angiographic injector comprising a valve that permits radiographic contrast material to be drawn from the reservoir into the syringe during a fill operation. Although Wilson teaches the user interface control that includes a touch screen, Wilson's angiographic injector neither contemplates a first phase of an injection procedure as a programmable flushing medium phase, nor contemplates a subsequent second phase comprising programmable contrast medium phase.

Because Prince, and further in view of Wilson, does not teach or suggest each and every element of the present invention, the Applicants' claimed invention would not be obvious to one skilled in the art in view of Prince and Wilson. Accordingly, the rejection under 35 U.S.C. §103(a) should be withdrawn.

In summary, the subject matter of the present invention is neither disclosed nor rendered obvious by any of the cited documents or by any combination of the documents if the skilled person would have combined them at all. Therefore, Applicants respectfully request withdrawal of the prior art rejections and allowance of the claims.

The Examiner is encouraged to call the undersigned attorney at 404-853-8081 if doing so will facilitate prosecution of the application. No fees are believed to be due at this time. However, the Commissioner is hereby authorized to charge any additional fees due or credit any overpayment to Deposit Account 19-5029.

Respectfully submitted,

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